

# **ORANGE COUNTY UNIFORM CODE PROGRAM**

## **The Orange County Uniformity Group**

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# **ORANGE COUNTY UNIFORM CODE PROGRAM**

## **INTRODUCTION**

In the interest of promoting consistency in building codes application and reducing regulations while maintaining high safety standards in Orange County, the Orange County Uniformity Group developed this document containing nine amendments representing a 90% reduction in local building code amendments.

This accomplishment is due in large part to the dedication and hard work of several individuals and organizations that realize how the amount and diversity of regulations between jurisdictions impact the construction industry and took the initiative to make a change.

These Uniform Amendments are intended to be used as a core document by participating jurisdictions who in turn may add or amend specific requirements related to fire provisions or other local conditions.

We encourage any jurisdiction that did not participate in this program initially and is interested in countywide uniform amendments to join the Orange County Uniformity Group and use this document for their jurisdiction.

APRIL 14, 1999

## **SUPPORTING ORGANIZATIONS**

1. International Conference of Building Officials (ICBO) Orange Empire Chapter
2. Building Industry Association, Orange County Chapter (In concept as of the date of this publication.)
3. American Institute of Architects, Orange County Chapter

# BUILDING CODE AMENDMENTS

## 1. HIGH RISE DEFINITION

### ~~SECTION 403 - SPECIAL PROVISIONS FOR GROUP B OFFICE BUILDINGS AND GROUP R, DIVISION 1 OCCUPANCIES ALL OCCUPANCIES~~

Section 403.1 is amended to read:

**SECTION 403.1 Scope.** This section applies to ~~Group B Office Buildings [For SFM]~~  
~~Group H, Division 8 And Group R, Division 1 Occupancies~~ all occupancies each having floors used for human occupancy located more than ~~75 feet (22,860mm)~~ 55 feet (16,764 mm) above the lowest level of fire department vehicle access. Such buildings shall be of type I or Type II-F.R. construction and shall be provided with an approved automatic fire sprinkler system in accordance with Section 403.2.

***SECTION 403.1.1 [For SFM]** In addition to other applicable requirements of these regulations, the provisions of this section shall apply to every new building of any type of construction or occupancy having floors used for human occupancy located more than ~~75 feet (22,860mm)~~ 55 feet (16,764 mm) above the lowest level of fire department vehicle access.*

***EXCEPTIONS:** Hospital as defined in Section 1250 of the Health and Safety Code.*

*2. The following structures, while classified as high-rise buildings, shall not be subject to the provisions of this section, but shall conform to all other applicable provisions of this regulation.*

*2.1 Buildings used exclusively as open parking structures.*

2.2 *Buildings where all floors above the 55-foot (16,744 mm) level are used exclusively as open parking structures.*

2.3 *Floors of buildings used exclusively as open parking garages and located above all other floors used for human occupancy.*

2.4 *Buildings such as power plants, lookout towers, steeples, grain houses and similar structures with noncontinuous human occupancy, when so determined by the enforcing official.*

2.5 *Buildings used exclusively for jails and prisons.*

## **FINDINGS**

This Council does hereby expressly find and determine that the amendment set forth in Ordinance No.,\_\_\_, amending sections 403.1 AND 403.1.1 of Title 24, Part 2 is reasonably necessary because of local climatic, geological or topographic conditions. This expressed finding is supported and based upon the following more specific findings, and determinations:

- a. The City of \_\_\_\_\_ is located in an area subject to a climatic condition of high winds and low humidity. This combination of events creates an environment, which is conducive to rapidly spreading fires. Control of such fires requires rapid response. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene. Additionally Table 16-G identifies a significant increase in the amount of wind force at 60 feet above the

ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

- b. The City of \_\_\_\_\_ is located in the middle of the seismically active area identified as Seismic Zone 4. The viability of the public water system would be questionable at best after a major seismic event. This would leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors.

## 2. ROOF COVERING

Table 15-A is amended to read:

**TABLE NO. 15-A MINIMUM ROOF CLASSIFICATION(3)**

OCCUPANCY	TYPES OF CONSTRUCTION								
	I	II			III		IV	V	
	FR	FR	1-HR	N	1-HR	N	HT	1-HR	N
A-1	B	B	-	-	-	-	-	-	-
A)2-2.1	B	B	B	-	B	-	B	B	-
A-3	B	B	B	B	B(1)	C	B(1)	B(1)	C
A-4	B	B	B	B	B	B	B	B	B(1)
B)	B	B	B	B	B(1)	C	B(1)	B(1)	C
E	B	B	B	B	B	B	B	B	B(1)
F	B	B	B	B	B(1)	C	B(1)	B(1)	C
H-1	A	A	A	A	-	-	-	-	-
H)2-3-4-5-6-7-8	A	B	B	B	B	B	B	B	B
D)1.1-1.2-2	A	B	B	-	B	-	B	B	-
I-3	A	B	B(1)	-	B(2)	-	-	B	-
M	B	B	B	B	B(1)	C	B(1)	B(2)	C
R-1	B	B	B	B	B(1)	C	B(1)	B(2)	C
R-3	B	B	B	B	<u>NR-C</u>	<u>NR C</u>	<u>NR C</u>	<u>NR C</u>	<u>NR C</u>
S-1,S-3	B	B	B	B	B(1)	C	B(1)	B(1)	C
S-2,S-5	B	B	B	B	B	B	B	B	B(1)
S-4	B	B	B	B	-	-	-	-	-
U	B	B	B	B	<u>NR<sup>4</sup> C</u>	<u>NR<sup>4</sup> C</u>	<u>NR<sup>4</sup> C</u>	<u>NR<sup>4</sup> C</u>	<u>NR<sup>4</sup> C</u>

A - Class A Roofing  
 B - Class B Roofing  
 C - Class C Roofing

F.R. – Fire Resistive Construction

H.T. – Heavy Timber Construction

N—No requirements for fire resistance

NR—Nonrated roof coverings

1 HR –1 Hour Rated Construction

- Occupancy not permitted in this type of construction

(1) Buildings which are not more than two stories in height and have not more than 6,000 square feet (557m<sup>1</sup>) of projected roof area and where there is a minimum of 10 feet (3,048m) from the extremity of the roof to the property line or assumed property line on all sides except for street fronts may have Class C roof coverings which comply with U.B.C. Standard No. 15-2.

(2) See Section 308.2.2

~~(3) Nonrated roof coverings may be used on buildings that are not more than two stories in height and have not more than 3,000 square feet (279m<sup>2</sup>) of projected roof area and where there is a minimum of 10 feet (3,048 mm) from the extremity of the roof to the property line on all sides except for street fronts.~~

(4) All structures, regardless of occupancy classification, located within the “High Fire Hazard Severity Zone,” as defined and periodically modified by the local jurisdiction, shall be provided with a Class “A” or “B” roof system.

~~(5) Unless otherwise required because of location, Group U, Division 1 roof coverings shall consist of not less than one layer of cap sheet, or built-up roofing consisting of two layers of felt and a surfacing material of 300 pounds per roofing square (14.6 kg/m<sup>2</sup>) of gravel or other approved surfacing material, or 250 pounds (12.2 kg/m<sup>2</sup>) of crushed slag.~~

## **FINDING**

This Council does hereby expressly find and determine that the amendments set forth in Ordinance No. \_\_\_\_\_, deleting Section 1502.3 and amending Table 15-A of said “California Building Standards Code,” are reasonable necessary because of local climatic, geological and topographical conditions. This expressed finding is supported and based upon the following more specific findings and determinations:

- a. Located within, or immediately contiguous to, the northerly and easterly corporate limits of the City of \_\_\_\_\_ are foothills commonly referred to as the Puente Hills and the Chino Hills (hereinafter collectively referred to “the foothill areas”).
- b. Significant growths of vegetation of a highly combustible nature.
- c. The City of \_\_\_\_\_, including the foothill areas, is geographically located in an area periodically subject to wind conditions of high velocity. Moreover, the topographical conditions of the foothill areas, and canyons contained therein, tend to accelerate the periodic high velocity winds by means of a venturi effect.
- d. The City of \_\_\_\_\_, including the foothill areas, is located with an area subject to high temperatures coupled with low humidity on a seasonal basis.
- e. The use of non-rated or special purpose roofing materials as roof coverings within the City of \_\_\_\_\_ may create an inordinate fire hazard during periods of high velocity winds when fire may spread across building with roof coverings of nonrated combustible materials.

- f. Embers from chimneys without spark arresters within the City of \_\_\_\_\_, including the foothill areas, coupled with the climatic, topographical and geographical conditions described herein above may permit the throwing of sparks, embers and cinders upon non-rated and special roofing materials roofs during periods of high velocity winds thereby creating a fire hazard which in turn may spread throughout areas where the roofs of structures are covered with untreated wood shakes and shingle.

### **3. SLAB ON GRADE CONSTRUCTION**

Section 1900.4.4 is amended to read:

**SECTION 1900.4.4 - Minimum Slab Thickness.** The Minimum thickness of concrete floor slabs supported directly on the ground shall not be less than 3 1/2 inches (89 mm). A minimum of 6 Mil approved vapor barrier membrane shall be placed under slab floors supported directly on the ground in Group I and R, Division 1 and 3 occupancies.

#### **FINDINGS**

Most of Orange County is located above some type of aquifer that is often just a few feet below the surface. In addition, the area is subjected to potentially severe rainstorms during the winter months. Combining these two water sources with the water retention capacity of the area's expansive soil produces a condition wherein the moisture content of the soil is sufficient to increase the moisture content of concrete in contact with the soil. Concrete, which is used as part of a building structure, has the potential to transfer

that moisture to the structure causing structural deterioration unless a moisture barrier is provided.

#### **4. SLAB ON GRADE REINFORCEMENT**

Exception 2 of section 1922.10.3 is hereby deleted.

#### **FINDINGS**

Due to prevailing expansive soil conditions in Orange County, deleting this exception would require that slabs be reinforced with Minimum reinforcement, a typical requirement, specified routinely by soil engineers and used widely by design engineers to mitigate damage due to soil expansion and shrinkage.

#### **5. APPENDIX CHAPTERS**

In addition to the chapter's listed in the California Adoption Matrix, adopt the following

Appendix Chapters:

- A12I VENTILATION
- A15 REROOFING
- A16II EARTHQUAKE RECORDING INSTRUMENTATION
- A16IV EARTHQUAKE REGULATIONS FOR SEISMIC ISOLATED  
STRUCTURES
- A18 WATERPROOFING AND DAMPPROOFING FOUNDATIONS
- A31II MEMBRANE STRUCTURES
- A31III PATIO COVERS
- A34III REPAIRS TO BUILDINGS AND STRUCTURES DAMAGED BY THE  
OCCURANCE OF A NATURAL DISASTER

## **MECHANICAL CODE AMENDMENTS**

No amendments are proposed.

# ELECTRICAL CODE AMENDMENTS

## 1. ALUMINUM CONDUCTORS

Article 110-5 is amended to read:

**ARTICLE 110-5 CONDUCTORS** Conductors normally used to carry current shall be of copper or of aluminum unless otherwise provided in this *Code*. Where the conductor material is not specified, the material and the sizes given in this *Code* shall apply to copper conductors. Where other materials are used, the size shall be changed accordingly. Aluminum conductors of No. 6 or smaller used for branch circuits shall require continuous inspection by an independent testing agency approved by the Building Official for proper torquing of connections at their termination point.

(FPN): For aluminum and copper-clad aluminum conductors, see Section 310-15.

## FINDINGS

Aluminum expands and shrinks at a much higher rate than other metals. This property becomes critical for smaller sizes or aluminum conductors, which may break down at termination point in a seismic event causing a fire. Orange County is located in an active seismic area (Seismic zone 4). The continuous inspection requirement will insure proper installation.

# PLUMBING CODE AMENDMENTS

## 1. NON METALLIC WATER SUPPLY PIPE

Section 604.1a is amended to read:

**SECTION 604.1a** [HCD 1 &2] Water pipe and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, galvanized steel, or other approved materials. Asbestos-cement, CPVC, PE or PVC water pipe manufactured to recognized standards ~~may~~ shall be used for cold water distribution systems outside a building. All materials used in the water supply system, except valves and similar devices, shall be of a like material, except where otherwise approved by the Administrative Authority.

## FINDINGS

Soils throughout the County possess corrosive properties that reduce the expected usable life of water services when metallic pipes in contact with soils are utilized.

## 2. NON METALLIC GAS PIPE

Section 1210.1 is amended to read:

**SECTION 1210.1** All pipe used for the installation, extension, alteration, or repair of any gas piping shall be standard weight wrought iron or steel (galvanized or black), yellow brass (containing not more than seventy-five (75) percent copper), or internally tinned or equivalency treated copper of iron pipe size. Approved Poly Ethylene or other non-metallic pipe ~~may~~ shall be used in exterior buried and piping systems.

## **FINDINGS**

Soils throughout the County possess corrosive properties that reduce the expected usable life of metallic gas systems when utilized in contact with soil.

# 1. SWIMMING POOL CODE

This amendment adopts the 1997 Uniform Swimming Pool Spa and Hot Tub Code published by the International Association of Plumbing and Mechanical Offices (IAPMO). As a model code with changes including the addition of Article 2.5 of the H & S Code, the Swimming Pool Safety Act covering the barrier requirements.

\_\_\_\_\_ Deletion of Part 1 Administration.

\_\_\_\_\_ Part 1 Administration of the Swimming Pool Code is deleted in its entirety. All administrative provisions including enforcement, permit process, fees, and inspections for this Chapter are contained in the Administrative Code under Chapter \_\_\_\_\_.

\_\_\_\_\_ Amendment to Section 301 of the Swimming Pool Code. Section 301 of the Swimming Pool Code is amended by adding a Subsection 301.3, 301.4, 301.5 and 301.6 as follows:

**SECTION 301.3** Waste water from any filter, scum filter, scum gutter, overflow, pool emptying line, or similar apparatus or appurtenance shall discharge into an approved type receptor and subsequently into a public sewer. The flood level rim of such receptor shall be at least six (6) inches above the flood level of the adjacent ground. Each such receptor when permitted to be connected to any part of a drainage system shall be provided with an approved trap with a minimum pipe size of three (3) inches.

**SECTION 301.4.** Article 2.5, of the Swimming Pool Safety Act Health and Safety Code is hereby adopted and repeated herein for convenience:

Article 25

THE SWIMMING POOL SAFETY ACT

Section

- 115920. Short title
- 115921. Definitions.
- 115922. Construction permit; safety features
- 115923. Enclosure; required characteristics
- 115924. Agreements to build; notice of provisions
- 115925. Exempt facilities
- 115926. Application to facilities regulated by Department of Social Services.
- 115927. Modification and interpretation of article.

§ 115920. Short Title

This act shall be known and may be cited as the Swimming Pool Safety Act.

§ 115921. Definitions

As used in this article the following terms have the following meanings:

- (a) “Swimming pool” or “pool” means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. “Swimming pool” includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and nonportable wading pools.
- (b) “Public swimming pool” means a swimming pool operated for the use of the general public with or without charge, or for the use of the members and guests of a

private club. Public swimming pool does not include a swimming pool located on the grounds of a private single-family home.

- (c) “Enclosure” means a fence, wall, or other barrier that isolates a swimming pool from access to the home.
- (d) “Approved safety pool cover” means a manually or power-operated safety pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with standard F1346-92.
- (e) “Exit alarms” means devices that make audible, continuous alarm sounds when any door or window, that permits access from the residence to the pool area that is without any intervening enclosure, is opened or is left ajar. Exit alarms may be battery-operated or may be connected to the electrical wiring of the building.

§ 115922. Construction permit; safety features required

Commencing January 1, 1998, except as provided in Section 115925, whenever a construction permit is issued for construction of a new swimming pool at a private, single-family home, it shall be equipped with at least one of the following safety features:

- (a) The pool shall be isolated from access to a home by an enclosure that meets the requirements of Section 115923.
- (b) The pool shall be equipped with an approved safety pool cover.
- (c) The residence shall be equipped with exit alarms on those doors providing direct access to the pool.

- (d) All doors providing direct access from the home to the swimming pool shall be equipped with a self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor.
- (e) Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the devices set forth in subdivisions (a) to (d), inclusive, as determined by the building official of the jurisdiction issuing the applicable building permit. Any ordinance governing child access to pools adopted by a political subdivision on or before January 1, 1997, is presumed to afford protection that is equal to or greater than that afforded by any of the devices set forth in subdivisions (a) to (d), inclusive.

§ 115923. Enclosure; required characteristics

- (a) Any access gates through the enclosure open away from the swimming pool, and are self-closing with a self-latching device placed no lower than 60 inches above the ground.
- (b) A minimum height of 60 inches.
- (c) A maximum vertical clearance from the ground to the bottom of the enclosure of two inches.
- (d) Gaps or voids, if any, do not allow passage of a sphere equal to or greater than four inches in diameter.
- (e) An outside surface free of protrusions, cavities, or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.

§ 115924. Agreements to build; notice of provisions

Any person entering into an agreement to build a swimming pool shall give the consumer notice of the requirements of this article.

§ 115925. Exempt facilities

The requirements of this article shall not apply to any of the following:

- (a) Public swimming pools.
- (b) Hot tubs or spas with locking safety covers that comply with the American Society for Testing Materials-Emergency Performance Specifications (ASTM-ES 13-89).
- (c) Any pool within the jurisdiction of any political subdivision that adopts an ordinance for swimming pool safety that includes requirements that are at least as stringent as this article.
- (d) An apartment complex, or any residential setting other than a single-family home.

§ 115926. Application to facilities regulated by Department of Social Services

This article does not apply to any facility regulated by the State Department of Social Services even if the facility is also used as the private residence of the operator. Pool safety in those facilities shall be regulated pursuant to regulations adopted therefore by the State Department of Social Services.

§ 115927. Modification and interpretation of article

Notwithstanding any other provision of law, this article shall not be subject to further modification or interpretation by any regulatory agency of the State, this authority being reserved exclusively to local jurisdictions, as provided for in subdivision (e) of Section 115922 and subdivision (c) of Section 115924.

**SECTION 301.5 Water Clarity.** All swimming pool and spa water shall be maintained in a clear condition, which is free of algae, insects, debris, and in a sanitary condition. The floor of the pool shall be clearly visible.

**SECTION 301.6 Retroactivity.** Subsection 301.4 shall not be enforced on a retroactive basis. Existing barriers required at the time of pool construction shall apply and be maintained.

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